



# UNITED STATES PATENT AND TRADEMARK OFFICE

HD  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/556,801	11/14/2005	Brian T. McNamara	60429-239; OT-5146	1788
7590 David J Gaskey Carlson Gaskey & Olds Suite 350 400 W Maple Road Birmingham, MI 48009		12/31/2007	EXAMINER KRUER, STEFAN	
			ART UNIT 3654	PAPER NUMBER
			MAIL DATE 12/31/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/556,801	MCNAMARA ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Stefan Kruer	3654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1)  Responsive to communication(s) filed on \_\_\_\_\_.
- 2a)  This action is **FINAL**.                            2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4)  Claim(s) 1 - 19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1 - 19 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on 14 November 2005 is/are: a)  accepted or b)  objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a)  All    b)  Some \* c)  None of:
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 14 November 2005.
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5)  Notice of Informal Patent Application
- 6)  Other: \_\_\_\_\_.

## DETAILED ACTION

### *Abstract*

The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

### *Drawings*

The drawings are objected to under 37 CFR 1.83(a) because they fail to show the details of the steel-core, rubber coated tension member as described in the specification on Page 4, L. 8 and recited in Claim 6.

Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claim 3** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claim 3** recites the limitation "the" in "the sheaves". There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

**Claim 6** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claim recites a tension member comprising a plurality of belts wherein each belt has a diameter of approximately 10 mm and a width of approximately 30 mm; however, in the disclosure (Page 4, L. 8) a single tension member of the aforementioned dimensions is described as well as the possibility of having multiple belts of unspecified dimensions. Furthermore, the disclosure states that the inventive belt is ".... significantly different than a rope or chain used in "conventional compensating arrangements"; however, said belt is not properly depicted.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 7 - 9 and 18 - 19** are rejected under 35 U.S.C. 102(b) as being anticipated by Miyoshi et al (GB 2,270,292).

**Re: Claim 1**, Miyoshi et al disclose:

- a cab (6, Fig. 8);
- a counterweight (13);
- a load bearing member (3) extending between the cab and the counterweight so that the cab and counterweight move simultaneously;
- a tension member (11) extending between the cab and the counterweight, the tension member providing a desired tension on the load bearing member; and
- a damper (5b) supported for movement with one of the cab or the counterweight, one end of the tension member being associated with the damper such that the damper reduces motion of the cab or the counterweight when the other of the cab or the counterweight has stopped.

**Re: Claim 7**, Miyoshi et al disclose wherein the damper comprises at least one of an air spring, a pneumatic damper, a hydraulic damper or a mechanical spring.

**Re: Claim 8**, Miyoshi et al disclose a first member (frame surface of counterweight bearing against 5c, Fig. 12) acting against one side of the damper and a second member (larger diameter of thimble rod) associated with an opposite side of the damper, the first member remaining stationary relative to the cab or counterweight with which the damper moves, the second member being moveable relative to the first member, the damper resisting movement of the second member toward the first member.

**Re: Claim 9**, Miyoshi et al disclose wherein the one end of the tension member is secured to at least one termination (angled portion of 4c, Fig. 12) that is secured near one end of each of a plurality of thimble rods (4c, Page 4, L. 3), an opposite end of the thimble rods being positioned on an opposite side of the second member from the damper and including a spring (5c) associated with each opposite end of each thimble rods to urge the opposite ends away from the second member.

**Re: Claim 18**, Miyoshi et al disclose an assembly (Fig. 8) for providing tension on a load bearing member in an elevator system, comprising:

- an elongate tension member having a first end that is adapted to be secured to one of a cab or a counterweight;
- a damper that is adapted to be supported for movement with the other of the cab or the counterweight, a second end of the tension member being associated with the damper such that the damper absorbs a load on the tension member under selected conditions; and
- a base module (not depicted, understood to house 12) that is adapted to be secured in a pit and that includes at least one sheave (12) having an axis of rotation that remains stationary relative to the pit, the tension member at least partially wrapping around the sheave.

**Re: Claim 19**, Miyoshi et al disclose wherein the damper includes at least one of an air spring, a hydraulic actuator, a pneumatic actuator or a mechanical spring.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 2 and 10 - 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyoshi et al in view of Ach (2001/0025743).

Miyoshi et al disclose a stationary base (not depicted, but understood, e.g. to support compensating sheave (12)) supported beneath a lowest available position of the cab and a plurality of sheaves (12, in keeping with alternative plurality of load bearing members and dampers, Pg. 4, L. 3) rotatably supported on the base; however, Miyoshi et al disclose each tension member moving along a sheave as the cab and counterweight move.

Attention is directed to Ach who teaches his stationary base (12) supported beneath a lowest available position of his cab (1) and a plurality of sheaves (6) rotatably supported on the base, his tension member (4) moving along the sheaves as the cab and counterweight move, for the features of affording desired displacement of the tension member in accommodating the elevator arrangement (L) for parallel runs of the tension member between the stationary base and respective counterweight and elevator car, larger standardized sheaves and a tension member of larger diameter.

It would have been obvious to one of ordinary skill in the art to modify the reference of Miyoshi et al with the teachings of Ach for performance and ergonomics.

**Claims 3 - 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyoshi et al in view of Baranda et al (6,401,871).

**Re: Claim 3**, Miyoshi et al are silent with respect to a material of their sheaves.

Attention is directed to Baranda et al who teach their sheaves as optionally fabricated from plastic (Col. 6, L. 10), wherein the use of plastic promotes the service

life of their tension member (Col. 5, L. 9), as an inexpensive alternative to the use and inevitable replacement of sheave liners.

It would have been obvious to one of ordinary skill in the art to modify the reference of Miyoshi et al with the teachings of Baranda et al for enhanced service life and reduction in operating costs.

**Re: Claims 4 - 5**, Miyoshi et al disclose their sheaves (1, 2 and/or 12); however, Miyoshi et al are silent with respect to their diameters.

Attention is directed to Baranda et al who teach standard sheaves as having diameters of 320 mm and the ability to reduce the sheave diameter and thereby the ratio of sheave diameter to outer diameter of their tension member through the use of synthetic tension members (Col. 1, L. 66 - Col. 2, L. 14), whereby the width of their tension member is much greater than its diameter for a reduction of bending pressure applied to their tension member (Col. 7, L. 18 – 23). Furthermore, Baranda et al review an example(s) of their inventive belt as having core ropes of unique material and diameter encased in a protective, sheave-engaging coating (Col. 5, L. 30 - 39) as well as interdependency of their sheave diameter, belt diameter and space with respect to a anticipated load (Col. 5, L. 29); thereby yielding a sheave having a diameter approximately thirty times greater than that of an outside diameter of a tension member.

It would have been obvious to one of ordinary skill in the art to modify the reference of Miyoshi et al with the teachings of Baranda et al for enhanced service life and reduction in torque.

**Re: Claim 6**, Miyoshi et al disclose a plurality of tension members; however, Miyoshi et al are silent with respect to their thickness and width.

Attention is directed to Baranda et al who their tension member comprising a plurality of belts (Fig. 3) wherein each of said belts has a width much greater than its diameter, "...particularly of (sic) (aspect) (sic) ratios greater than two" (Col. 4, L. 59).

It would have been obvious to one of ordinary skill in the art to modify the reference of Miyoshi et al with the teachings of Baranda et al for enhanced distribution of rope pressure and thereby service life, without comprising "load carrying capacity".

**Claims 15 - 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyoshi et al in view of Ach, as applied to Claim 11, and in further view of Baranda et al.

Miyoshi et al are silent with respect to the diameters of their sheaves and Ach teaches the diameters of his sheaves being of large diameter and thereby of standard size for noise reduction; however, Ach is silent with respect to a diameter of their sheaves with respect to the diameter of their tension member.

Attention is directed to Baranda et al who teach standard sheaves as having diameters of 320 mm and the ability to reduce the sheave diameter and thereby the ratio of sheave diameter to outer diameter of their tension member through the use of synthetic tension members, whereby the width of their tension member is much greater than its diameter for a reduction of bending pressure applied to their tension member. Furthermore, Baranda et al review an example(s) of their inventive belt as having core ropes of unique material and diameter encased in a protective, sheave-engaging coating as well as interdependency of their sheave diameter, belt diameter and space with respect to an anticipated load, thereby yielding a sheave having a diameter approximately thirty times greater than that of an outside diameter of a tension member.

Additionally, Baranda et al teaches their tension member comprising a plurality of belts wherein each of said belts has a width much greater than its diameter, "...particularly of (sic) (aspect) (sic) ratios greater than two" (Col. 4, L. 59).

It would have been obvious to one of ordinary skill in the art to modify the reference of Miyoshi et al with the teachings of Baranda et al for enhanced distribution of rope pressure and thereby service life, without comprising "load carrying capacity".

It would have been obvious to one of ordinary skill in the art to modify the reference of Miyoshi et al with the teachings of Baranda et al for enhanced distribution of rope pressure and thereby service life, without comprising "load carrying capacity".

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fuller et al (5,750,945) and O'Donnell et al (6,123,176); Coleman et al (4,724,929); Biewald et al (5,398,781); and Tosato et al (3,810,529) and Ach (6,431,321) are cited for reference of:

- dampers having first members acting against one side of the dampers and second members associated with an opposite side of the dampers, each first members remaining stationary relative to a cab or counterweight with which the dampers moves, each second member being moveable relative to a respective first member, wherein the dampers include at least one of an air spring, a hydraulic actuator, a pneumatic actuator or a mechanical spring ;
- a tension member having an outside dimension, wherein a sheave has a diameter that is greater than said outside dimension;
- a damper that is adapted to be supported for movement with a counterweight, a second end of a tension member being associated with the damper such that the damper absorbs a load on the tension member;
- stationary bases, each supported beneath a lowest available position of a cab and a plurality of sheaves rotatably supported on each respective base, wherein a respective tension member moves along the sheaves as the cab and a counterweight move, respectively.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Kruer whose telephone number is 571.272.5913. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Cuomo can be reached on 571.272.6856. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866.217.9197 (toll-free).

SHK

25 December 2007



SAUL RODRIGUEZ  
SUPERVISORY PATENT EXAMINER